Strickman does not disclose the invention as claimed including impregnating the carrier in a liquefied solid fuel. Strickman does not disclose either explicitly or implicitly a liquefied solid fuel as saturating a porous carrier. Strickman teaches "dipping" a compressed pulp simulating quarter log (the "log") in a melted wax. "To dip", both as defined in dictionary definitions, and as understood by a worker with ordinary skill in the art, is to immerse an item in liquid and then to quickly emerge said item. "Dipping" does not suggest that the item is immersed for sufficient time for the liquid to impregnate the item, but only that the liquid superficially coats the exterior of the item.

The log in Strickman is formed by subjecting it to significant pressure. In fact, Strickman suggests a minimum applied pressure of 1000 psi, see col. 2, lines 46-66. By applying such high pressures during its manufacturing process, Strickman's log, as a result, cannot function as a porous carrier capable of being impregnated by liquified wax.

Strickman clearly does not even teach the benefits of impregnating a porous carrier with liquified solid fuel. Strickman teaches that the log is dipped in wax because it "materially lowers the kindling temperature thereof and reduces the ash content." The wax coating therefore reduces the activation energy required for the exothermic combustion reaction. One can deduce that this is also why coating results in less ash production, namely because more cellulose is converted into the end products of the combustion reaction: $C_6H_{10}O_5 + 6O_2 \rightarrow 6CO_2 + 5H_2O +$ heat.

It is respectfully submitted that, to have saturated Strickman's log, which is submitted is not even possible, in melted wax, would not have merely been a matter of degree, but rather would have amounted to a new invention as will be expounded upon below. The superficial application of liquid wax to the exterior of the log fails to achieve the benefits of the present invention. In addition, the coated log disclosed by Strickman would not function in the same manner as the fuel source of the present invention, as described in the specification.



The Applicant's patent teaches a body comprised of a porous carrier impregnated with a liquified solid fuel such that the liquified solid fuel is dispersed throughout the porous carrier. As best understood, in the present invention the porous carrier transports the solid fuel which has been vaporized from within this body to a combustion surface of the body wherein combustion is occurring. It is believed that the porous carrier serves to assist heat transfer from the combustion surface into the body to promote vaporization of the solid fuel and that the porous carrier allows for air to be drawn into the body below the combustion surface to facilitate clean and complete combustion.

Another property of the combustible fuel source of the Applicant's invention is that the porous carrier substantially retains its shape and cohesiveness throughout substantially the entire combustion period of the combustible fuel source. There is no indication that the simulated fireplace logs in Strickman confer the same benefit, thereby militating against the possibility that Strickman's log includes liquified solid fuel dispersed throughout the solid fuel. It is likely that once the outer layer of wax on the Strickman simulated fireplace log has melted, the interior material would lose its shape as it combusts. In contrast, the cellulosic fibres of the porous carrier of the Applicant's fuel source are strongly bonded. The shape retention properties of the combustible fuel source of the Applicant's invention is believed to be assisted by the vaporized solid fuel which moves through the porous carrier to the combustion surface, the vapors apparently serve to assist the porous carrier in retaining its structure until the solid fuel is exhausted. The porous carrier is aided in retaining its shape by the carbon ash produced during combustion of the solid fuel. This occurs at the surface of the carrier and builds towards the centre of the carrier while osmosis is progressing outwardly from the interior of the carrier. Accordingly, it is believed that, for a short time, both stages of combustion are occurring. As the carbon builds at the surface, the carbon molecules continue to effectively bond the carrier's particles together. This simplifies clean up and disposal of the spent fuel source.

In summary, the simulated fireplace log disclosed in Strickman does not function in the



same manner or confer the same benefits as the combustible fuel source disclosed in the present invention.

It is submitted that in light of the above comments, claim 27 should be allowed and that as claims 28-36 are dependent on claim 27, they should also be allowed.

Respectfully submitted,

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